

Muntries: an Australian native berry- Extension Activities and Resources for teachers

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Australian Science Curriculum links:

Year 6:

The growth and survival of living things are affected by the physical conditions of their environment (ACSSU094)

Year 5:

Living things have structural features and adaptations that help them to survive in their environment (ACSSU043)

Resources

<http://www.muntries.nativeaustralianfoods.com/photo.html>

South Australian Native Foods Association (SANFA): <http://www.sanativefoods.org.au/>

<http://www.theglobalmail.org/feature/why-aborigines-were-australias-original-landscape-gardeners/371/>

<http://www.science.org.au/events/publiclectures/ac/gamimage.html>

<http://www.gardeningwithangus.com.au/shop/Let039s-Propagate>

<http://www.gardeningwithangus.com.au/video-category>

Bonney, Neville (2012) "Knowing, Growing, Eating: Edible wild native plants for Southern Australia" 2nd Edition

Laminated 8 "page" folded Information cards – by Stefan Major, available at some Nurseries and the botanic gardens/internet

- Plant Propagating, Gardener's guide
- seed collecting guide
- botanical field guides

Introductory discussion before growing your own Muntries

Questions for students	Prompts for teachers
How did the indigenous Australians find their food? Did they have farms?	<ul style="list-style-type: none"> • gathering from a range of known places • needed to remember where/when certain plants were available • “managed the land” – keeping some areas clear for better hunting / to attract animals
We are used to eating the same foods all year round. Was this the same for indigenous Australians?	<ul style="list-style-type: none"> • discuss concept of seasons – most plants only produce fruit or seed for 1-3 months of the year. • importance of fruit and seed – food source for mammals and lizards which were also part of the diet • need for menu planning throughout the year- choice is only from what is available.
What part of a plant do you need to make more plants?	<ul style="list-style-type: none"> • seed • some seeds need special treatment to germinate (start growing) eg smoke, which scientists have discovered contains a special chemical needed for germination. • other seeds (muntries, eucalyptus, grasses) are small and are easily germinated on top of moist soil, with a layer of fine gravel (1-2 mm pieces). The gravel stops insects carrying off the seed, or the wind blowing it away.
Can you use any other part of a plant to make a new plant?	<p>Sometimes you can use stems, or even roots or leaves, this is known as taking “cuttings” or plant propagation, but:</p> <ul style="list-style-type: none"> - some plants need special chemicals - some plants need heat <p>and timing is important</p>

Pictures of ways to grow the plants

Growing naturally at Cape Jervis

Muntries grow along the ground (prostrate)-plants can be as wide as 5m, but only 10cm tall!



Growing on trellises in Mount Pleasant



Growing the fruit on trellises makes it easier to harvest.

How to make a simple 'glass house' for propagating



1. Use a 1.25l clear plastic drink bottle
2. Make a small cut with sharp knife just before the bottle begins to narrow
3. Cut around the bottle with scissors leaving a 2cm piece uncut to create a 'hinge'
4. Poke at least 6 holes in the bottom
5. Fill bottom with coarse propagating sand (washed if possible)
6. Use round pencil to make holes in sand, one at a time before you insert each cutting
7. Replace lid to create 'glass house' effect
8. Place in container, with a little water, to keep moist and to stop leakage from drainholes

Grow your own muntries.

Seed: Let fruit dry, during which time seed will be released. As no treatment is needed, sprinkle seed on trays of seed raising mix then thinly cover with a little mix. Keep moist, but not wet.

Cuttings: Use semi-hardwood cuttings, ~10cm in length. Best results are achieved when root stimulating hormone powder is applied to the cut ends. Place half way into well draining media. Striking can occur without rooting powder but success can be halved. Heating of propagation trays is not required but can increase time to rooting.

Taking the cuttings [steps can be simplified for different year levels]

1. cut muntries segments of healthy, unbranched stems [you need 7 – 12 cm piece]
2. remove leaves from about 3-5 “nodes” [where leaves join the stem, counting from cut end]
3. re-cut the bottom at an angle – just below node
4. dip cut surface in special powder or gel
5. insert into cut end into the hole in the sand, so that about 1/3 is in the sand, 2/3 above
6. gently firm the sand so that it touches the stem
7. spray with a fine mist of water to increase the humidity
8. gently put cover over the cuttings and seal with a piece of tape
9. put in a takeaway tub/ice cream container
10. add water to tub such that it is 1-1.5 cm up the side of the container.
11. check water level every couple of days
12. water droplets may form on the inside of the bottle as is good, but not essential
13. wait patiently 6 – 12 weeks (faster with bottom heat), until you see roots through the bottom or sides
14. if a cutting dies, carefully remove it
15. for this technique, practice makes (nearly) perfect. When you start it might only be 10-20%, but with practice up to 80-90%

Transplanting rooted cuttings

1. carefully tip out onto a surface
2. gently remove each seedling away from sand and place in fresh potting mix
3. need to keep in humid environment for a few weeks and gradually “harden off”